

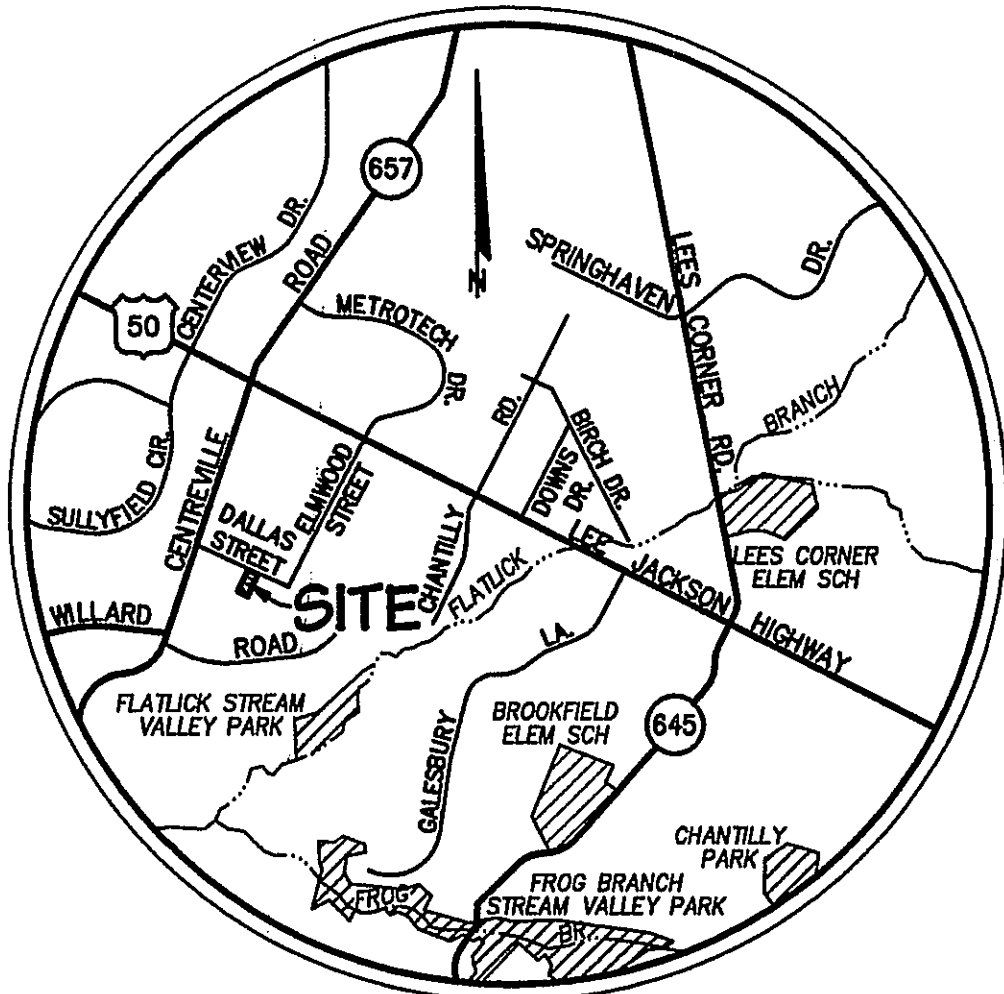
CONCEPTUAL / FINAL DEVELOPMENT PLAN
ROCKLAND VILLAGE

LOT 7

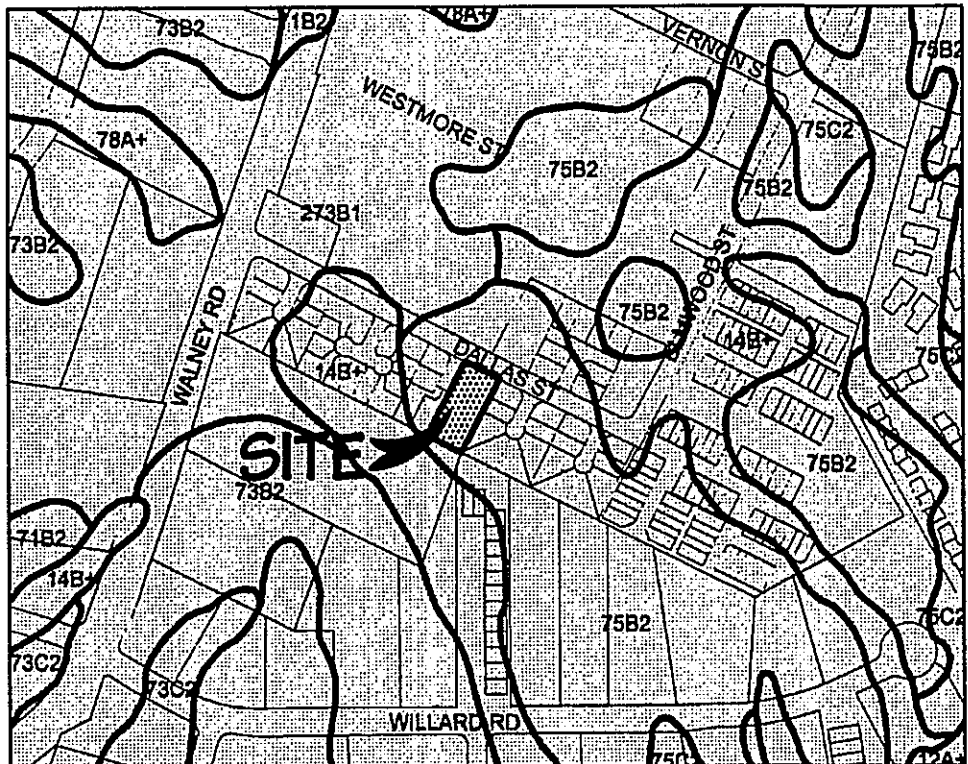
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

NOTES

1. THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON FAIRFAX COUNTY TAX ASSESSMENT MAP NUMBER 44-2(2)7. THE SITE IS CURRENTLY ZONED R-1. THE PROPOSED ZONE IS PDH-8.
2. THE PROPERTY HEREON IS CURRENTLY IN THE OWNERSHIP OF KARL SALLBERG IN DEED BOOK 11204 AT PAGE 19 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A FIELD RUN SURVEY PREPARED BY CHARLES P. JOHNSON & ASSOCIATES, DATED SEPTEMBER, 2010. CONTOUR INTERVAL EQUALS TWO FEET NGVD 1929.
4. THERE ARE NO 100-YEAR FLOODPLAINS ON-SITE. NO FLOODPLAIN OR DRAINAGE STUDIES ARE REQUIRED FOR THIS PROJECT.
5. THERE ARE NO RESOURCE PROTECTION AREAS (RPA's) OR ENVIRONMENTAL QUALITY CORRIDORS (EQCs) ON THIS SITE. A WATER QUALITY IMPACT ASSESSMENT WILL NOT BE REQUIRED.
6. TO THE BEST OF OUR KNOWLEDGE, THE SITE HAS NO SCENIC ASSETS OR NATURAL FEATURES DESERVING OF PROTECTION AND PRESERVATION.
7. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN GRAVES, OBJECTS, OR STRUCTURES MARKING A PLACE OF BURIAL.
8. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR GREATER, NOR ANY MAJOR UNDERGROUND UTILITY EASEMENTS LOCATED WITHIN THE SITE.
9. ANY EXISTING WELLS ON-SITE ARE TO BE CAPPED AND ABANDONED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS.
10. SEE SHEET 2 FOR A DESCRIPTION OF EXISTING VEGETATION.
11. EXISTING STRUCTURES ARE TO BE REMOVED. THE EXISTING DWELLING WAS CONSTRUCTED IN 1948.
12. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 116.4, 302.4, AND 355; ALL HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280; TO BE GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF ON-SITE AND THE SIZE AND CONTENTS OF ANY EXISTING OR PROPOSED STORAGE TANKS OR CONTAINERS.
13. THE SUBJECT SITE LIES WITHIN THE WATER SUPPLY PROTECTION OVERLAY DISTRICT.
14. THERE ARE NO AFFORDABLE DWELLING UNITS (ADUs) REQUIRED FOR THIS PROJECT.
15. NO DENSITY REDUCTIONS ARE REQUIRED BY ZONING ORDINANCE SECTION 2-308.
16. IN ACCORDANCE WITH THE ADOPTED COMPREHENSIVE PLAN, THE PROPOSED DEVELOPMENT WILL PROVIDE RESIDENTIAL DEVELOPMENT AT 8.0 DWELLING UNITS PER ACRE AND WILL CONFORM TO ALL APPLICABLE ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS EXCEPT AS NOTED BELOW :
- A WAIVER OF THE MINIMUM DISTRICT SIZE IS HEREBY REQUESTED.
 - A WAIVER OF THE ON-SITE STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES REQUIREMENTS IN LIEU OF OFFSITE SWM/BMP PONDS IS HEREBY REQUESTED.
 - A WAIVER OF THE OPEN SPACE REQUIREMENT IS HEREBY REQUESTED.
17. THE SITE IS TO BE SERVICED BY PUBLIC WATER VIA AN EXISTING 4" MAIN LOCATED IN BELL RIDGE COURT, AND BY PUBLIC SEWER VIA AN EXISTING 8" MAIN LOCATED IN BELL RIDGE COURT.
18. PARKING SPACES WILL BE PROVIDED AS GENERALLY SHOWN ON THE CONCEPTUAL/FINAL DEVELOPMENT PLAN. THE NUMBER OF PARKING SPACES MAY BE INCREASED OR DECREASED FROM THAT NUMBER REPRESENTED IN THAT TABULATION AS LONG AS THE MINIMUM NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE.
19. THERE ARE NO RECREATIONAL FACILITIES PROPOSED WITH THIS DEVELOPMENT.
20. SPECIAL AMENITIES ARE PROVIDED OFFSITE IN THE ROCKLAND VILLAGE DEVELOPMENT. THE SITE IS TO BE INCORPORATED INTO ROCKLAND VILLAGE.
21. A DEVELOPMENT SCHEDULE HAS NOT BEEN DETERMINED AT THIS TIME.
22. THE PROPOSED ARCHITECTURE IS TO BE IN CONFORMANCE WITH ADJACENT PROPERTY TO THE WEST.
23. A TRAIL IS NOT REQUIRED FOR THIS PROJECT PER THE FAIRFAX COUNTY TRAILS PLAN.
24. PARCEL "I" WILL BE CONVEYED TO A HOMEOWNERS ASSOCIATION FOR OWNERSHIP AND MAINTENANCE.
25. MINOR MODIFICATIONS TO THE BUILDING FOOTPRINTS, LOT AREAS, DIMENSIONS, UTILITY LAYOUT, AND LIMITS OF CLEARING AND GRADING MAY OCCUR WITH THE FINAL ENGINEERING DESIGN, IN SUBSTANTIAL CONFORMANCE WITH THE CDP/FDP, PROVIDED SUCH ARE IN ACCORDANCE WITH THE MINOR MODIFICATIONS PROVISION IN SECTION 16-403 OF THE ZONING ORDINANCE.



VICINITY MAP
SCALE : 1" = 2000'



SOILS MAP/DATA
SCALE : 1" = 500'

SOIL/LOT CALCULATIONS			
LOT NUMBER(S)	SOIL NUMBER	SOIL NAME	PROBLEM CLASS
7	75B2	PENN (I)	C

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

- ☒ 1. Plot is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- ☐ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet N/A.
- ☐ 3. Provide :
Facility Name/ Type & No. On-site area served (acres) Off-site area served (acres) Drainage area (acres) Footprint area (sf) Storage Volume (cf) If pond, dam height (ft)
N/A (***)(***)(***)(***)(***)(***)
Totals (***)(***)(***)(***)(***)(***)
- ☒ 4. Onsite drainage channels, outfalls, and pipe systems are shown on Sheet 3. Pond inlet and outlet pipe systems are shown on Sheet N/A.
- ☐ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet N/A. Type of maintenance access road surface noted on the plot is N/A.
- ☐ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet N/A.
- ☒ 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 6.
- ☒ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 6.
- ☒ 9. A description of how the outfall requirements, including known changes to contributing drainage areas (i.e. drainage diversions), of the Public Facilities Manual will be satisfied is provided on Sheet 6.
- ☒ 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 1, 2 & 3.
- ☒ 11. A submission waiver is requested for onsite stormwater management and best management practices.
- ☒ 12. Stormwater management is not required because offsite facilities already exist.

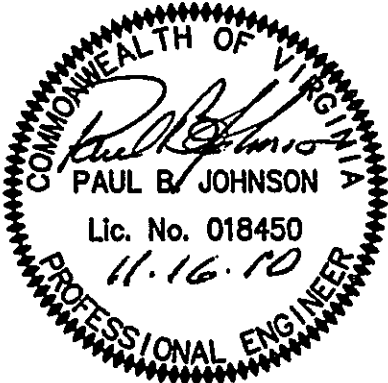
SITE TABULATIONS

SITE AREA :	
LOT AREA	20,443 sq (0.47 Ac)
PARCEL "I"	1,363 sq (0.03 Ac)
TOTAL	21,806 sq (0.50 Ac)

PDH-8 ZONE

	REQUIRED	PROVIDED
NUMBER OF UNITS	---	4 SINGLE-FAMILY DETACHED
MAXIMUM DENSITY	8 DU/AC (MAX.)	8.0 DU/AC
MINIMUM LOT AREA	N/R	3,953 sq
AVERAGE LOT AREA	N/R	5,109 sq
MINIMUM LOT WIDTH	INTERIOR LOT - N/R CORNER LOT - N/R	INTERIOR LOT - N/R CORNER LOT - N/R
MAXIMUM BUILDING HEIGHT	35'	35'
MINIMUM YARDS :		
FRONT	N/R	10' (DRIVEWAYS TO BE 18' MIN.)
SIDE	N/R	5'
REAR	N/R	12'
OPEN SPACE	25%	* SEE NOTE 16
PARKING	3 SPACES/ UNIT	3 SPACES/ UNIT

Application No. 22-2010-50-Staff 312
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6/1/11
Date of (BOS) (PC) approval 5/24/11
Sheet 1 of 6



RECEIVED
Department of Planning & Zoning
JUN 09 2011
Zoning Evaluation Division

DEVELOPER
LYLAB HOLDINGS, LLC
3050 CHAIN BRIDGE ROAD
SUITE 103
FAIRFAX, VIRGINIA 22030
(703) 383-6111

TABLE OF CONTENTS

- COVER SHEET
- EXISTING CONDITIONS & EXISTING VEGETATION MAP
- CONCEPTUAL / FINAL DEVELOPMENT PLAN
- CONCEPTUAL LANDSCAPE PLAN
- TREE PRESERVATION PLAN
- OUTFALL ANALYSIS

CPJ Charles P. Johnson & Associates, Inc.
PLANNERS ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS
3259 PENDER DRIVE SUITE 210 FAIRFAX, VIRGINIA 22030 (703) 385-7555
SILVER SPRING, MD FAX (703) 273-8595

DATE : NOVEMBER 16, 2010

A. Tree Preservation Target Calculations and Statement (Table 12.3)		
A	Pre-development area of existing tree canopy	0.5F
B	Percentage of gross site area covered by existing tree canopy	0%
C	Percentage of 10-year canopy required for site	20%
D	Percentage of 10-year canopy requirement that should be met through tree preservation	0.0%
E	Proposed percentage of canopy requirement that will be met through tree preservation	0.0%
F	Has the Tree Preservation Target minimum been met?	YES
G	If no, provide sheet number where deviation request is located	N/A

B. Tree Canopy Requirement		
1	Identify gross site area	21,804 SF
2	Subtract area dedicated to road frontage and parks	0 SF
3	Subtract area of exemptions	0 SF
4	Adjusted gross site area (B1 - B2 - B3)	21,804 SF
5	Identify site's zoning and/or use	PDH-8
6	Percentage of 10-year canopy required	20%
7	Area of 10-year canopy required (B4 x B6)	4,361 SF
8	is a modification of canopy requirements being requested?	
9	if B6 is yes, provide sheet number where modification request is located	N/A

<u>C. Tree Preservation</u>		
1		Tree Preservation Target Area 0 SF
2	Total canopy area meeting standards of §12-0200	0 SF
3		x 1.25 0 SF
4	Total canopy area of unique or valuable forest or woodland communities	0 SF
5		x 0.50 0 SF
6	Total canopy area of Heritage, Memorial, Specimen or Street Trees	0 SF
7		x 1.5 to 3.0 0 SF
8	Canopy area of trees within Resource Protection Areas and 100-year floodplains	0 SF
9		x 1.0 0 SF
10	Total of C3, C5, C7, and C9	0 SF

D. Tree Planting			
1	Area of canopy to be met through tree planting (B7 - C10)	4,361 SF	
2	Area of canopy to be planted for air quality benefits	700 SF	
3	x 1.50	1,050 SF	
4	Area of canopy to be planted for energy conservation	0 SF	
5	x 1.50	0 SF	
6	Area of canopy to be planted for water quality benefits	0 SF	
7	x 1.25	0 SF	
8	Area of canopy to be planted for wildlife benefits	1,700 SF	
9	x 1.50	2,550 SF	
10	Area of canopy provided by native trees	0 SF	
11	x 1.50	0 SF	
12	Area of canopy provided by improved cultivars and varieties	0 SF	
13	25% credit	0 SF	
14	Area of canopy provided by other trees	900 SF	
15	x 1.0	900 SF	
16	Area of canopy provided through tree seedlings	0 SF	
17	x 1.0	0 SF	
18	Area of canopy provided through native shrubs or woody seed mix	0 SF	
19	x 1.0	0 SF	
20	Percentage of line D15 represented by line D16 (must not exceed 33% of D14)	0 %	
21	Total of canopy area to be provided through tree planting	4,500 SF	
22	Is offsite planting relief requested?	NO	
23	Tree Bank or Tree Fund?	N/A	
24	Canopy area requested to be provided through offsite banking or tree fund	0 SF	
25	Amount to be deposited into the Tree Preservation and Planting Fund	0	

<u>E. Total of 10-year Tree Canopy Provided</u>		
1	Total canopy area provided through tree preservation (C10)	0 SF
2	Total canopy area provided through tree planting (D17)	4,500 SF
3	Total canopy area provided through offsite mechanism (D19)	N/A
4	Total 10-year tree canopy provided	4,500 SF

Total 10-year tree canopy provided (% of net site area) 21 %

CAT. III & IV SHADE TREE (2" CAL.)
(E.G. TULIP POPLAR, WILLOW OAK, BEECH)



CAT. I & II EVERGREEN TREE (8' HGT.)
(E.G. ARBORVITAE, ATLANTIC WHITE-CEDAR)



CAT. II ORNAMENTAL TREE (2" CAL.)
(E.G. SERVICEBERRY, STAR MAGNOLIA)

* LANDSCAPING IS CONCEPTUAL IN NATURE. FINAL LOCATIONS AND SPECIES ARE TO BE DETERMINED WITH FINAL SITE PLAN. NATIVE AND/OR DESIRABLE SPECIES WILL BE USED WHERE POSSIBLE. TREE LOCATIONS AND SIZES MAY VARY WITH FINAL OVERHEAD & UNDERGROUND UTILITY LOCATIONS

CONCEPTUAL LANDSCAPE PLAN

ROCKLAND VILLAGE

LOT 7

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

[illegible]

DESIGN BLM	DRAFT BLM	DATE OCT., 2010	HORIZ. 1" = 20'
APPROVED	HMF	SCALE	
SHEET 4		OF 6	
PRJ NO: 04-555			
TYPE: CDP/FDP			

CPI
Associates
Charles P. Johnson & Associates, Inc.
PLANNERS ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS
3959 PEPPER DRIVE SUITE 210 FAIRFAX, VIRGINIA 22030 (703)385-7555
SILVER SPRING, MD FAX/(703)3273-8995

Attached Xrefs: 00-F0401/00-F0501/00-r0301/00-R0401

Last Saved 10/8/2010 Last Plotted 10/8/2010 10:46 AM Sheet N: \04555\DWG\00-F6601

TREE PRESERVATION NARRATIVE:

Trees as referred to in this document are considered those trees that are protected by limits of clearing and grading and shown for preservation on approved plans.

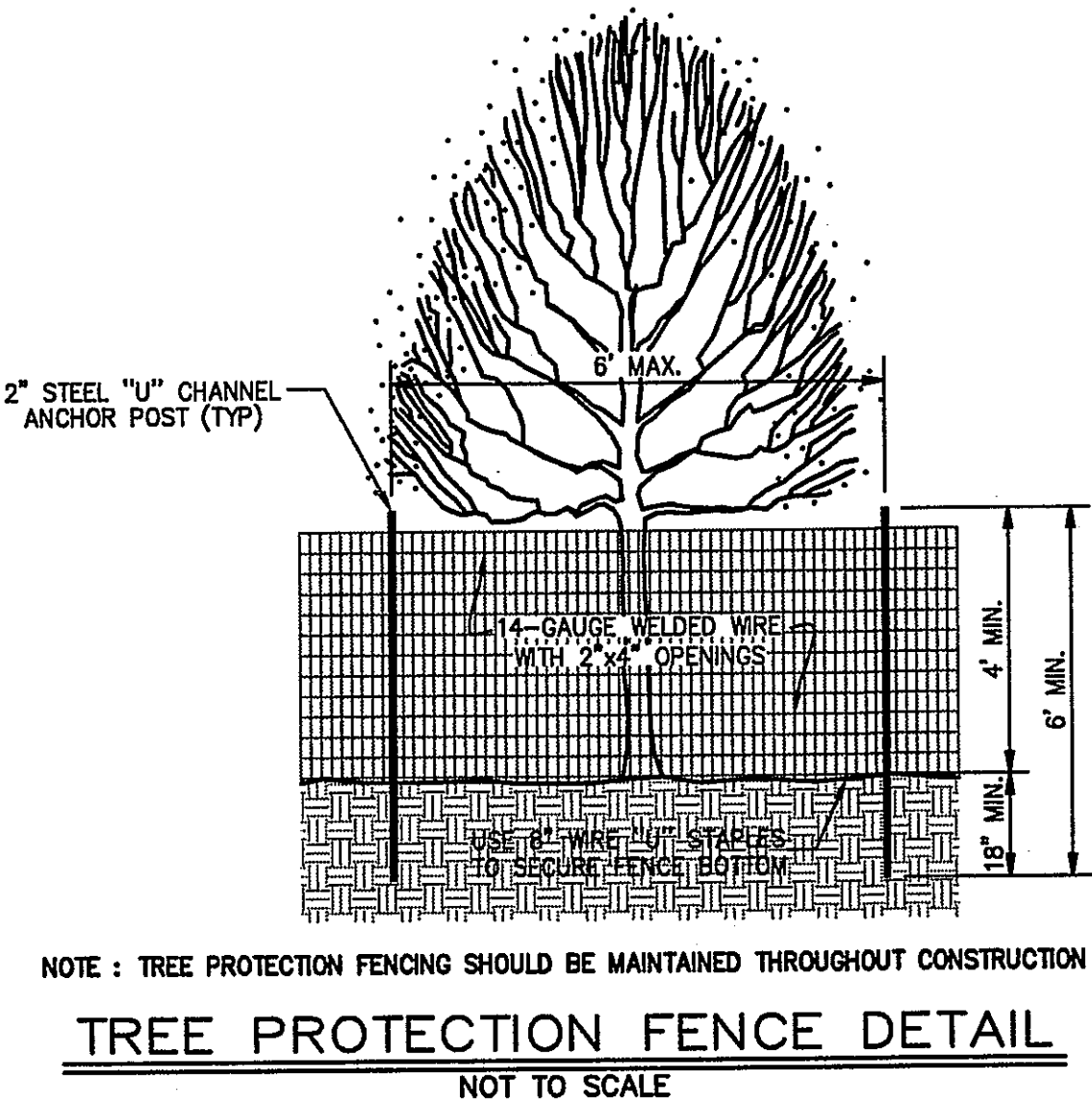
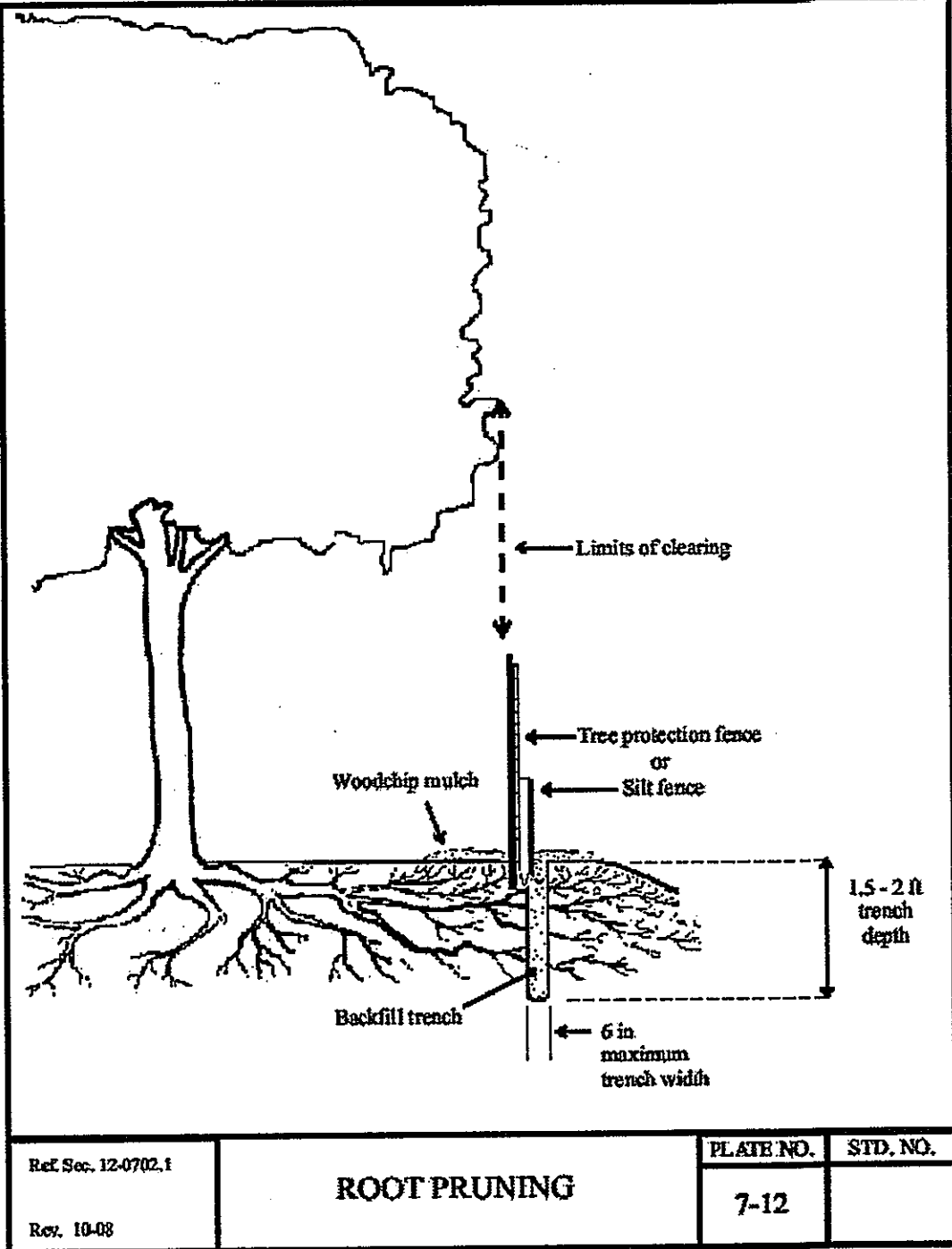
1. **Flagging/ Site Layout:** Prior to requesting a pre-construction meeting, the contractor is responsible for flagging the limits of clearing and grading. These limits shall not exceed that shown on the approved plans.
2. **Pre-Construction Meeting:** After clearing limits have been staked a meeting shall be requested by the contractor to walk with owner or owner's designated representative, arborist/forester hired by owner, site superintendent, clearing contractor and UFMD, DPWES representative to make minor adjustments as necessary to observe trees listed in tree preservation activity schedule. Additional preservation activities will be coordinated with the Urban Forestry Division at this time.
3. **Tree Protection Approval:** Selective tree removals, root pruning, and tree protection fence installation should be completed prior to any demolition or land clearing operations. An UFMD, DPWES, representative shall be contacted a minimum of three (3) days prior to any site clearing, grading or demolition activities are to begin, to inspect the site to insure that the tree protection has been installed.
4. **Protection of Existing Understory Vegetation and Soil Conditions in Tree Preservation Areas:** All tree preservation-related work occurring in or adjacent to tree preservation areas shall be accomplished in a manner that minimizes damage to vegetation to be preserved in the lower canopy environment, and to the existing top soil and leaf litter layers that provide nourishment and protection to that vegetation. Any removal of any vegetation or soil disturbance in tree preservation areas including the removal of plant species that may be perceived as noxious or invasive, such as poison ivy, greenbrier, multi-floral rose, etc. shall be subject to the review and approval of UFMD, DPWES
5. **Use of Equipment:** Except as qualified herein, the use of motorized equipment in tree preservation areas will be limited to hand-operated equipment such as chainsaws, wheel barrows, rake and shovels. Any work that requires the use of motorized equipment, such as tree transplanting spades, skid loaders, tractors, trucks, stump-grinders, etc., or any accessory or attachment connected to this type of equipment shall not occur unless pre-approved by UFMD.
6. **Root Pruning:** Tree preservation Areas shall be root pruned along the limits of clearing adjacent to significant trees 20" dbh and greater or as noted by the project arborist in the Tree Inventory and Activity Schedule. Root pruning shall be a minimum of 18" deep and shall be accomplished using a small walk behind trencher or air spade. The root pruning trench shall be backfilled immediately. Silt fence/super silt fence installation utilizing walk behind trencher can be substituted for root pruning.
7. **Mulching:** Trees indicated will be mulched with wood chips generated from on site clearing or tree removal and pruning operations when possible. Shredded hardwood mulch from offsite may be utilized if approved by project arborist. Mulch shall be spread in a uniform depth of three (3") inches by hand. Mulch shall be placed in an area as indicated on approved plans or extending in a swath fifteen feet wide along the Limit of Disturbance adjacent to indicated trees at minimum.
8. **Tree Protection Fencing:** Tree Preservation Areas shall be protected by fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel t-bar posts driven eighteen (18) inches into the ground at maximum six (6) foot spacing. Fencing shall be erected at the limits of clearing and grading as shown on the demolition, and erosion and sediment control sheets. The installation of all tree protection fence types shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Tree protection fencing shall be made clearly visible to all construction personnel. Signs stating "TREE PRESERVATION AREA - KEEP OUT" shall be affixed to the tree preservation fence at least every 30 feet, and five (5) working days prior to the commencement of any clearing, grading, or demolition activities, but subsequent to the installation of the tree protection devices including fencing. UFMD and the district supervisor staff shall be notified and given the opportunity to inspect the site to assure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by UFMD.
9. **Tree Protection Maintenance:** Fencing shall be maintained in an upright position for the duration of the project. Tree protection fencing that is damaged as a result of land clearing operations shall be repaired prior to the end of the workday that the damage occurred.
10. **Pruning:** All pruning shall conform to current ANSI A300-2001 pruning standards. Trees designated for pruning shall be crown cleaned of deadwood 2" and greater unless otherwise specified by the project arborist. The interior of trees shall not be stripped of live tissue, suckers, or epicormic branches. Damaged, crossing, and rubbing branches may be removed at the arborist's discretion. Debris from pruning operations may be chipped and deposited into the Tree Preservation Areas and spread by hand to a uniform depth or be removed from the site.
11. **Site Monitoring:** During any clearing or tree/vegetation structure removal or transplantation of vegetation on the subject site, a representative of the applicant shall be present to monitor the process and ensure that the activities are conducted as approved by UFMD. The applicant shall retain the services of a certified arborist to monitor all construction work and tree preservation efforts in order to ensure conformance with all tree preservation conditions, and UFMD approvals. Monitoring inspections to ensure compliance with tree preservation plans and other jurisdictional requirements shall be conducted daily during initial site clearing operations, weekly through the erosion and sediment control phase, weekly for four weeks thereafter and monthly for 12 months. The district supervisor shall be notified of the name and contact information of the Applicant's representative responsible for site monitoring at the tree preservation walk-through meeting.

NOTE: AS STATED BY SECTION 12-0506.1B AND SECTION 12-0506.2B IN THE PUBLIC FACILITIES MANUAL, DEAD TREES AND TREES THAT REPRESENT A POTENTIAL HAZARD TO HUMAN HEALTH AND PROPERTY WHICH ARE 8 INCHES IN DIAMETER OR GREATER THAT RESIDE IN ONE OF THE TWO FOLLOWING AREAS WILL BE IDENTIFIED IN THE TREE INVENTORY.

AREA 1. 150 FEET FROM THE PROPOSED LIMITS OF CLEARING AND GRADING WITHIN THE UNDISTURBED AREA.

AREA 2. 25 FEET FROM THE PROPOSED LIMITS OF CLEARING AND GRADING WITHIN THE DISTURBED AREA.

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



TREE INVENTORY AND ACTIVITIES SPREADSHEET

Tree #	COMMON NAME	SCIENTIFIC BINOMIAL	DBH(in)	CONDITION	COMMENTS	STATUS	ACTIVITIES
1	Sargent Cherry	Prunus sargentii	4	93	Offsite tree	Preserve	
2	Paper Mulberry	Broussonetia papyrifera	6	87	Offsite tree - Condition assessed visually from proposed development site.	Preserve	X X X
3	Leyland Cypress	x Cupressocyparis leylandii	15	71	Offsite tree - Dual trunk, limb dieback, needle loss and discoloration	Preserve	
4	Silver Maple	Acer saccharinum	6	78	Offsite tree - Growing into adjacent cypress tree	Preserve	
5	Leyland Cypress	x Cupressocyparis leylandii	8	78	Offsite tree - Adjacent silver maple crowding tree	Preserve	
6	Atlantic White Cedar	Chamaecyparis thyoides	15	59	Offsite tree - Trunk damage, broken limbs, limb dieback, sparse foliage. Poor condition remove with owners consent.	Remove	
7	Leyland Cypress	x Cupressocyparis leylandii	8	65	Offsite tree - Severely leaning trunk, poor condition	Preserve	
8	Paper Mulberry	Broussonetia papyrifera	8	87	Offsite tree	Preserve	
9	Paper Mulberry	Broussonetia papyrifera	16	84	Offsite tree - Trunk curved at base	Preserve	X X X X

TREE APPRAISAL SPREADSHEET (TRUNK FORMULA METHOD)

Tree #	COMMON NAME	SCIENTIFIC BINOMIAL	SPECIES RATING	DBH(in)	CONDITION	SITE	CONTRIBUTION	PLACEMENT	LOCATION	STATUS	Appraised Trunk Area TA In2	Tree Trunk Area Increase TA In2	Basic Tree Cost	Appraised Value Trunk Formula Method
1	Sargent Cherry	Prunus sargentii	60	4	93	70	80	70	73	Preserve	12.56	-7.44	942	\$385.47
2	Paper Mulberry	Broussonetia papyrifera	65	6	87	70	50	50	57	Preserve	28.26	8.26	2119.5	\$679.19
3	Leyland Cypress	xCupressocyparis leylandii	60	15	71	70	75	80	75	Preserve	176.625	156.625	13246.875	\$4,232.38
4	Silver Maple	Acer saccharinum	50	6	78	70	60	50	60	Preserve	28.26	8.26	2119.5	\$495.96
5	Leyland Cypress	xCupressocyparis leylandii	60	8	78	70	75	80	75	Preserve	50.24	30.24	3768	\$1,322.57
7	Leyland Cypress	xCupressocyparis leylandii	60	8	65	70	65	80	72	Preserve	50.24	30.24	3768	\$1,053.16
8	Paper Mulberry	Broussonetia papyrifera	65	8	87	70	50	70	63	Preserve	50.24	30.24	3768	\$1,349.51
9	Paper Mulberry	Broussonetia papyrifera	65	16	84	70	50	70	63	Preserve	200.96	180.96	15072	\$5,211.90
TOTAL													\$14,730.13	
Tree appraisal value determined by the Trunk Formula Method as outlined in the latest edition of <i>The Guide for Plant Appraisal</i> published by the International Society of Arboriculture(ISA) .														
The cost figures applied for Replacement Tree Cost, Installed Tree Cost and Unit Tree Cost are referenced in the 2007 edition of <i>The Mid-Atlantic Species Rating Guide</i> published by the Mid Atlantic Chapter of the ISA.														
prepared by Rebecca Mitchell ISA Certified Arborist MA-4668A														

Application No. RZ-2010-015 Staff BK

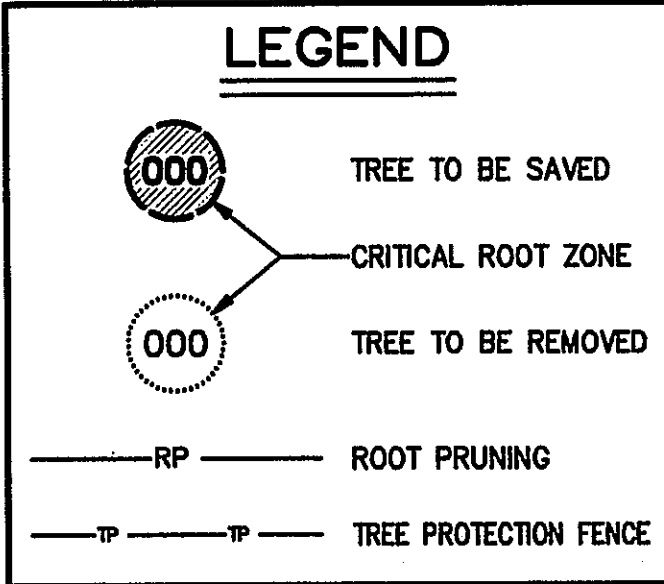
APPROVED DEVELOPMENT PLAN

(DP) (GDP) (CDP) (EDP)

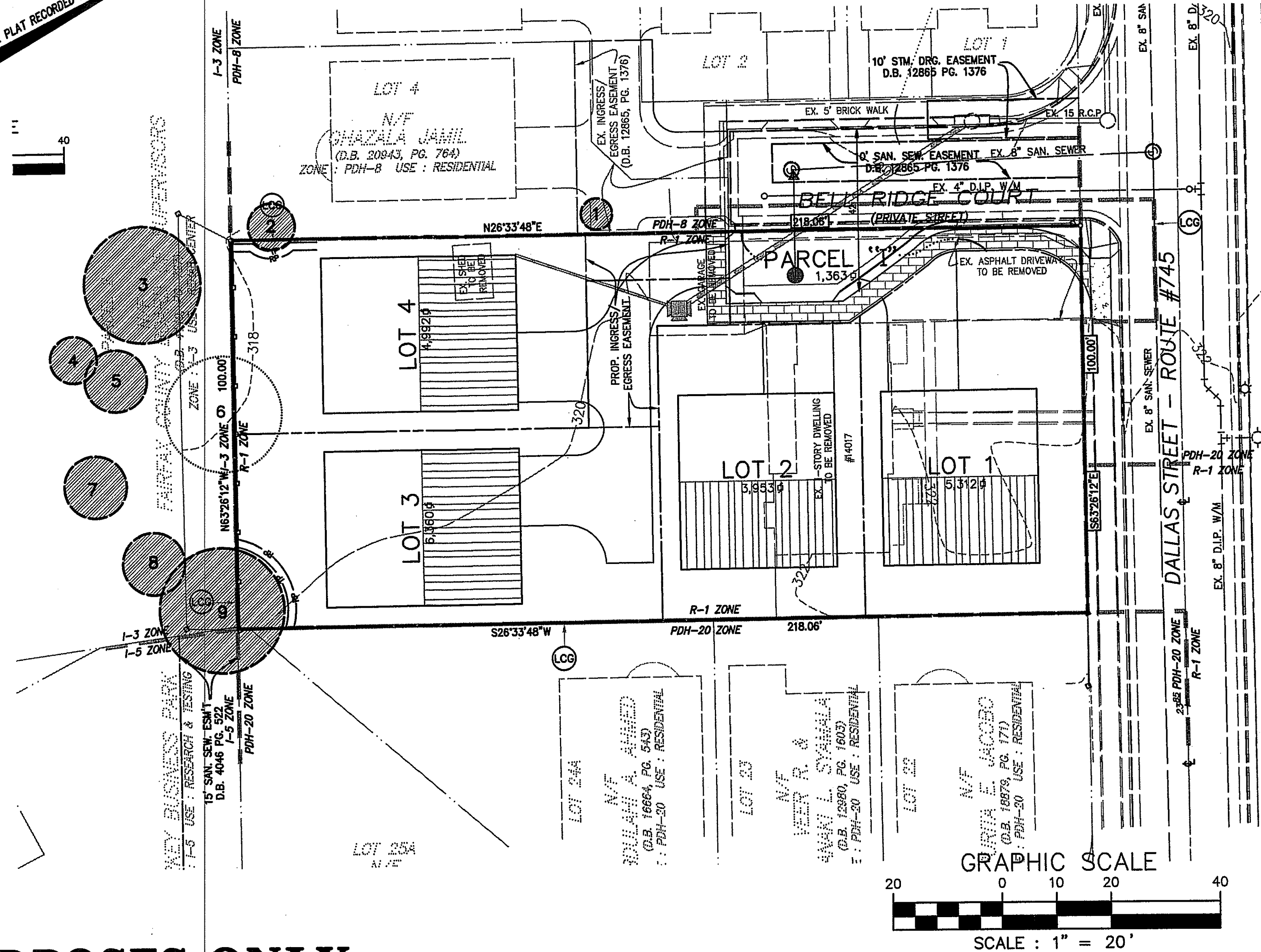
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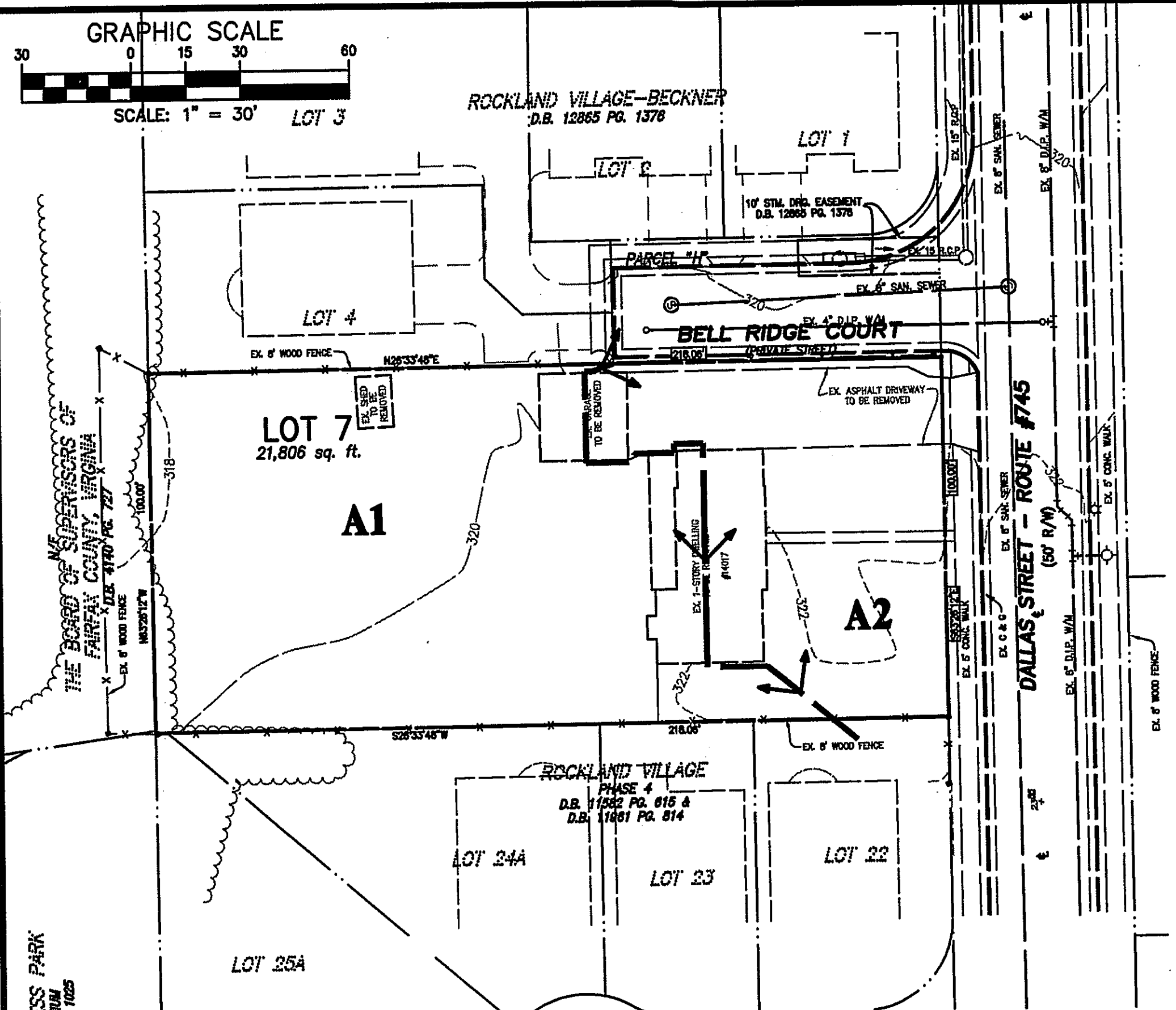
Date of (BOS) (FOP) approval 5/20/11

Sheet 5 of 6



NORTH (PER PLAT RECORDED D.B. 512 PG. 441)

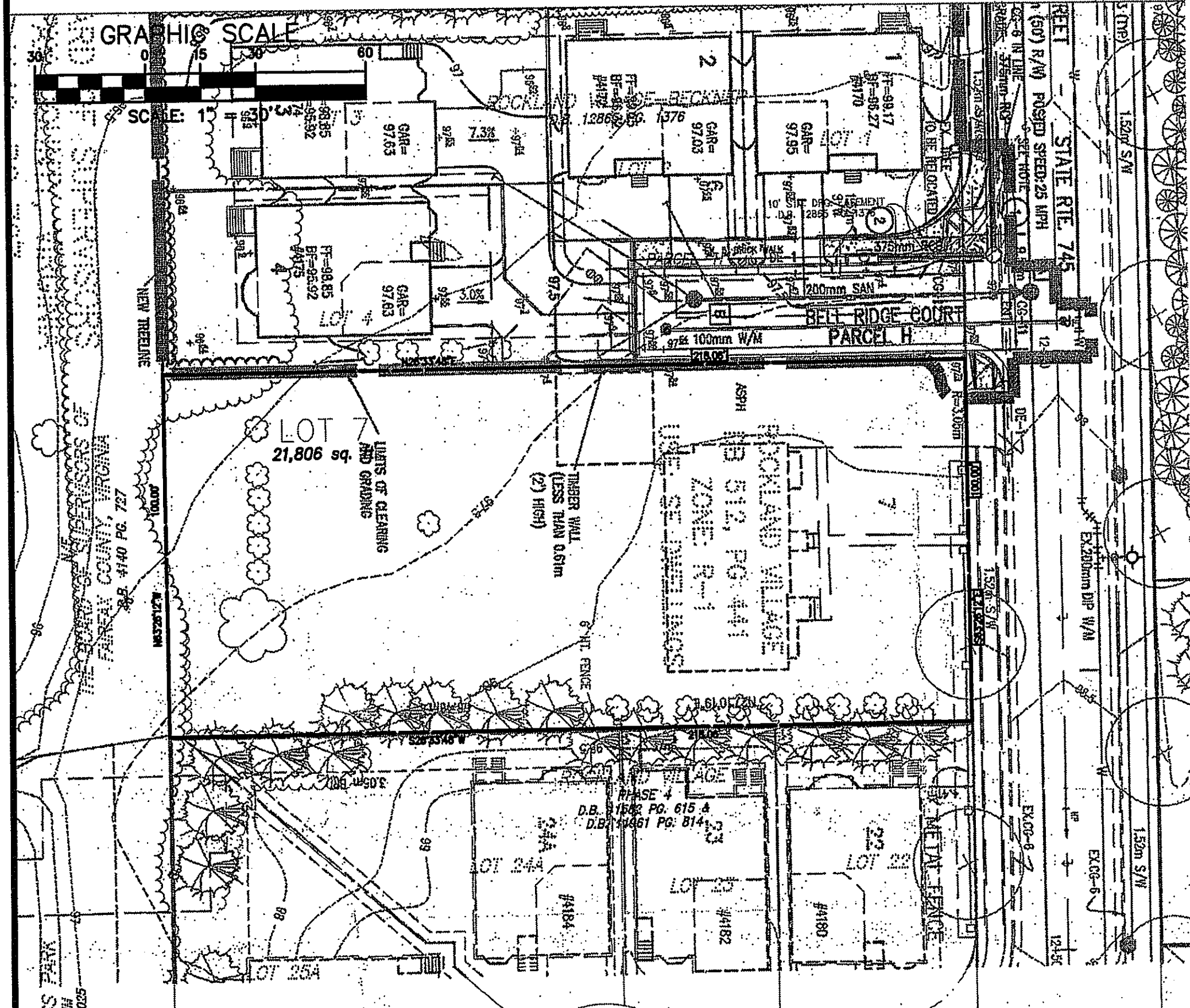




PRE-DEVELOPMENT DRAINAGE DIVIDE MAP

Pre-Development Condition

A1=	0.34 Ac.	C= 0.38		
Q2=	0.34 x 0.38 x	5.45 =	0.70 cfs	
Q10=	0.34 x 0.38 x	7.27 =	0.94 cfs	
A2=	0.16 Ac.	C= 0.60		
Q2=	0.16 x 0.6 x	5.45 =	0.52 cfs	
Q10=	0.16 x 0.6 x	7.27 =	0.70 cfs	



POST-DEVELOPMENT DRAINAGE DIVIDE MAP

Post-Development Condition

A1=	0.15 Ac.	C= 0.54		
Q2=	0.15 x 0.54 x	5.45 =	0.44 cfs	
Q10=	0.15 x 0.54 x	7.27 =	0.59 cfs	
A2=	0.35 Ac.	C= 0.69		
Q2=	0.35 x 0.69 x	5.45 =	1.32 cfs	
Q10=	0.35 x 0.69 x	7.27 =	1.76 cfs	

Existing Storm Sewer Computations Rockland Village																					
FROM	TO	DRAIN AREA (ACRES)	RUNOFF COEF. C	C X A		TIME OF CONCENTRATION			Q (cfs)			DESIGN (AS-BUILT)				PROFILE (AS-BUILT)					
				INCR.	ACCU.	TIME	I	INCR. (c.f.s.)	ACCU. (c.f.s.)	PIPE DIA. H.	SLOPE F/R	T ²	MAX Q (c.f.s.)	VEL F/Sec	LENGTH R	FALL R	UPPER INV	LOWER INV			
OFFSITE TO STRUCTURE 1																					
1	Ex.2	0.13	0.62	0.08	0.08																
		0.35	0.69	0.24	0.32		5	7.27	1.76	2.34	15	0.0050	0.013	4.58	3.76	90.00	0.45	316.58	315.13		
Ex.2	Ex.1								0.79	3.13	15	0.0168	0.013	8.38	6.27	33.43	0.58	315.88	315.32		
Ex.1	Ex.68A								0.79	3.13	15	0.0182	0.013	8.72	6.38	76.02	1.38	315.03	313.65		
Ex.68A	Ex. 68								1.69	4.03	15	0.0045	0.013	4.33	4.05	87.27	0.39	313.12	312.73		
Ex. 68	Ex. 67								4.66	7.00	15	0.0064	0.013	5.17	4.84	87.60	0.58	312.47	311.91		
Ex. 67	Ex. 66								7.63	9.97	18	0.0006	0.013	2.57	1.67	100.72	0.08	310.89	310.83		
Ex. 66	Ex. 65								10.25	12.59	24	0.0090	0.013	21.46	7.09	139.44	1.25	310.53	308.28		
Ex. 65	Ex. 64A								11.24	13.58	24	0.0084	0.013	20.80	7.07	65.29	0.55	308.59	308.04		
Ex. 64A	Ex. 64B								12.46	14.80	24	0.0109	0.013	31.87	8.85	46.28	0.82	307.81	306.89		
Ex. 64B	Ex. 24								15.10	17.44	24	0.0077	0.013	19.87	7.19	80.71	0.62	306.79	306.17		
EX 24	EX 22								25.28	27.82	27	0.0104	0.013	31.91	9.04	81.70	0.85	305.87	304.92		
EX 22	EX 23								68.88	71.20	38	0.0135	0.013	77.62	12.60	82.71	1.12	304.69	303.58		
EX 23	EX 28								80.31	82.65	39	0.0115	0.013	71.57	11.62	177.39	2.03	303.48	301.44		
EX 28	EX 29								102.33	104.67	54	0.0085	0.013	158.81	10.68	242.55	1.57	303.03	298.46		
EX 29	DITCH								114.43	116.77	54	0.0080	0.013	175.73	11.80	94.91	0.75	298.33	297.57		

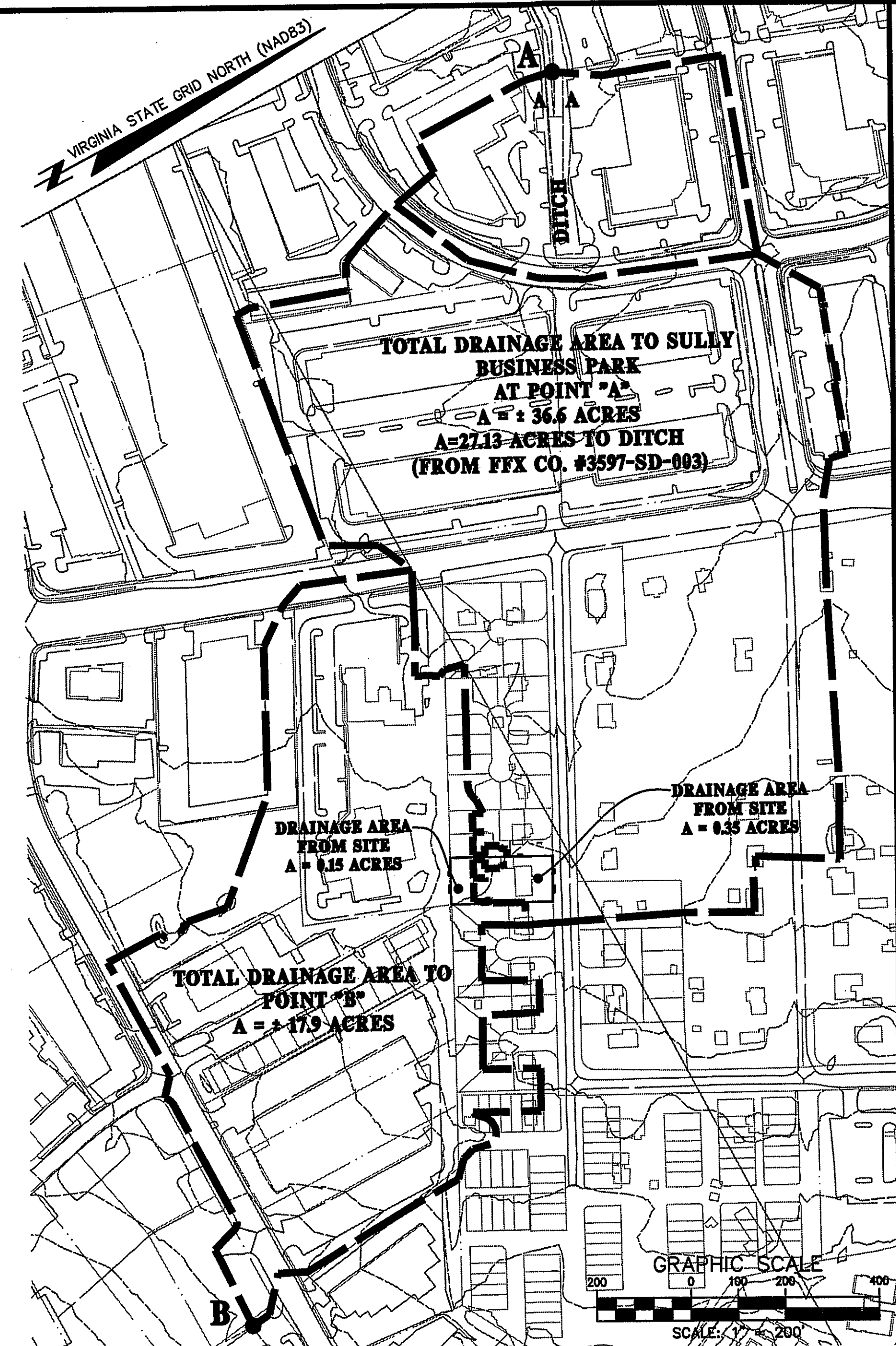
ADEQUATE OUTFALL ANALYSIS

THE SITE IS LOCATED OFF OF DALLAS STREET IN THE SULLY DISTRICT AS SHOWN ON TAX MAP 44-2-(22)-7. THE SITE CONTAINS APPROXIMATELY 0.5 ACRES AND IS CURRENTLY ZONED R-1. THE CURRENT SITE CONTAINS A SINGLE FAMILY RESIDENCE WITH A DETACHED GARAGE. THERE ARE MULTIPLE VEHICLES STORED ON THE SITE BEHIND THE EXISTING GARAGE THAT APPEAR TO BE ABANDONED. A PORTION OF THE SITE CURRENTLY DRAINS NORTHERLY TOWARD DALLAS STREET. THIS PORTION INCLUDES THE FRONT HALF OF THE HOUSE, GARAGE, AND DRIVEWAY. THE REMAINDER DRAINS SOUTHWESTERLY TO THE REAR OF THE LOT, THEN SHEET FLOWS ONTO THE ADJACENT COUNTY OWNED PROPERTY AT TAX MAP NUMBER 44-2-(1)-2. THE WATER THEN FLOWS INTO THE EXISTING DETENTION FACILITIES ON THIS PARCEL AND CONTINUES TO ITS OUTFALL.

THE REDEVELOPMENT OF THIS SITE WILL REQUIRE A REZONING SO THAT THE DESIGN OF THE SITE CAN BE MADE SIMILAR TO THE ADJACENT SUBDIVISION, ROCKLAND VILLAGE BECKNER (FAIRFAX COUNTY #3597-SD-003). THE PROPERTY IS PROPOSED TO BE REZONED FROM R-1 TO PDH-8 TO ALLOW FOR THE CONSTRUCTION OF 4 SINGLE-FAMILY DETACHED HOMES AS HAD BEEN DONE ON THE ADJACENT PROPERTY IN RZ-2000-SU-054. THE FINAL GRADING WILL ALLOW FOR A DECREASE IN RUNOFF ONTO THE COUNTY OWNED PROPERTY, WITH THE MAJORITY OF THE IMPERVIOUS AREA OF THE SITE COLLECTED INTO A STORM SEWER SYSTEM THAT WILL ULTIMATELY OUTFALL INTO THE EXISTING WET POND CONSTRUCTED WITH THE SULLYFIELD BUSINESS PARK.

SINCE THE RUNOFF TO THE COUNTY PROPERTY IS REDUCED TO BELOW PREDEVELOPMENT LEVELS, ADEQUACY OF OUTFALL IS MAINTAINED IN THAT DIRECTION. THE ADEQUACY OF OUTFALL FOR THE PORTION OF THE SITE THAT IS COLLECTED INTO THE STORM SEWER SYSTEM IS SHOWN ON THIS SHEET (SEE EXISTING STORM SEWER COMPUTATION ABOVE). BASED ON AVAILABLE INFORMATION FROM FAIRFAX COUNTY A PORTION OF THE EXISTING PIPES ARE BELOW CAPACITY. A HYDRAULIC GRADE LINE ANALYSIS IN THAT PORTION OF THE SYSTEM INDICATES THAT THE SYSTEM WILL FUNCTION WITH THE INCREASED RUNOFF. THE REMAINDER OF THE STORM SEWER SYSTEM WAS ANALYZED TO POINT "A" THAT IS GREATER THAN 100 TIMES OF THE CONTRIBUTING SITE AREA (SEE OVERALL DRAINAGE DIVIDE MAP THIS SHEET). THE EXISTING WET POND WITHIN SULLYFIELD BUSINESS PARK HAS ACCOUNTED FOR THE SUBJECT SITE FOR STORM WATER MANAGEMENT AND BMP REQUIREMENTS. THEREFORE, IT IS THE OPINION OF THIS ENGINEER THAT THE OUTFALL IS ADEQUATE AND THE INCREASED RUNOFF WILL CAUSE NO ADVERSE IMPACTS TO DOWNSTREAM STRUCTURES.

ONSITE STORMWATER MANAGEMENT AND BMPs WAIVER REQUESTS WILL BE FILED WITH SEPARATE COVER.



OVERALL DRAINAGE DIVIDE MAP

THE DRAINAGE OF 27.13 ACRES TAKEN FROM FAIRFAX COUNTY PLAN 3597-SD-03 HAS AN ACCUMULATED C-FACTOR OF 0.70. THIS C-FACTOR WAS USED TO EVALUATE THE 36.6 ACRES FOR SECTION A-A USING THE SAME 10-YEAR INTENSITY OF 6.02 INCHES/HOUR.

Channel ID		A-A	
Runoff Analysis			
Drainage Area	(Ac.)	36.60	
Rational Coefficient		0.70	
2 Year Intensity	(in./hr.)	6.02	
10 Year Intensity	(in./hr.)	6.02	
2 Year Runoff	(cu. ft./sec.)	1.76	
10 Year Runoff	(cu. ft./sec.)	2.34	
Channel Geometry			
Design Depth	(ft.)	0.00	
Bottom Width	(ft.)	0.00	
Side Slope Left	X H:1 V	4:1	
Side Slope Right	X H:1 V	4:1	
Channel Slope	(ft./ft.)	0.020	
Lining Material		Paved	
Channel Manning			
Manning's Coefficient		0.015	
10 Year Flow Depth	(ft.)	0.00	

Hydraulic Grade Line For Existing Storm Sewer in Rockland Village																								
INLET NO.	INLET TYPE	OUTLET WATER SURFACE ELEV.										JUNCTION LOSS										INLET WATER SURFACE ELEV.	RIM ELEV.	FREE BOARD
			D ₀ (In.)	Q ₀ (CFS)	L ₀ (Ft.)	Sf ₀ %	H _f (Ft.)	V ₀	H ₀	Q ₁	V ₁	Q ₂ V ₁	V ₁ ² 2g	H ₁	Angle	K _d	H _d	H ₁	1.3 H ₁	0.5 H ₁	FINAL H (Ft.)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)	(14)		(15)	(16)	(17)	(18)	(19)	(20)	(21)	
EX 66	DI	312.13	24	13.20	139.44	0.0034	0.47	4.20	0.069	10.30	5.63	60.03	0.528	0.185	0	0.00	0.000	0.253	0.33	0.16	0.64	312.77	315.35	2.58
EX 67	DI	312.77	18	10.30	100.72	0.0096	0.96	5.63	0.132	7.33	5.97	43.78	0.554	0.194	0	0.00	0.000	0.326	0.42	0.21	1.18	313.94	316.30	2.36
EX 68	DI	313.94	15	7.33	87.60	0.0128	1.12	5.97	0.138	4.34	3.54	15.35	0.194	0.068	0	0.00	0.000	0.206	0.27	0.13	1.26	315.20	317.32	2.12
EX 68A	DI	315.20	15	4.34	87.27	0.0045	0.39	3.54	0.049	3.13	2.55	7.98	0.101	0.035	0	0.00	0.000	0.084	0.11	0.05	0.45	315.65	319.16	3.51
EX 1	MH	315.65	15	3.13	76.02	0.0023	0.18	2.55	0.025	3.13	2.55	7.98	0.101	0.035	0	0.00	0.000	0.061	0.06	0.03	0.21	315.85	320.37	4.52
EX 2	DI	315.85	15	3.13	33.43	0.0023	0.08	2.55	0.025	2.34	3.76	8.80	0.220	0.077	90	0.70	0.154	0.256	0.33	0.17	0.24	316.10	319.95	3.85